THAT WHICH IS CLAIMED:

1. An overcap for a container, wherein the overcap can store a product for mixing with a liquid held in the container, the overcap comprising:

a rim configured to engage the container;

a top wall defining a storage compartment in an underside of the top wall, the top wall having a substantially horizontal annular portion radially inward of the rim and surrounding the storage compartment, a drinking aperture being defined in the annular portion; and

a membrane removably attached to the underside of the top wall of the overcap covering the storage compartment for sealing a product contained in the storage compartment.

- 2. An overcap of Claim 1, further comprising a skirt extending downwardly from the rim.
 - 3. An overcap of Claim 2, wherein the skirt defines a grip surface.
- 4. An overcap of Claim 3, wherein the skirt extends below a lowermost surface of the top wall of the overcap.
- 5. An overcap of Claim 3, wherein the skirt includes a plurality of spacers extending along an inner surface of the skirt.
- 6. An overcap of Claim 5, wherein the plurality of spacers are circumferentially spaced apart from each other and extend downwardly from the rim of the overcap.
- 7. An overcap of Claim 1, wherein the storage compartment defines a domed portion.
- 8. An overcap of Claim 7, wherein the domed portion has incorporated therein a desiccant.

- 9. An overcap of Claim 1, wherein the membrane is relatively impermeable to moisture.
- 10. An overcap for a container, wherein the overcap can store a product for mixing with a liquid held in the container, the overcap comprising:

a rim configured to engage the container;

a top wall defining a storage compartment in an underside of the top wall, the top wall having a substantially horizontal annular portion radially inward of the rim and surrounding the storage compartment;

a skirt extending downwardly from the rim, wherein the skirt defines a grip surface; and

a membrane removably attached to the underside of the top wall of the overcap covering the storage compartment for sealing a product contained in the storage compartment.

- 11. An overcap of Claim 10, wherein the skirt extends below a lowermost surface of the top wall of the overcap.
- 12. An overcap of Claim 11, wherein the skirt includes a plurality of spacers extending along an inner surface of the skirt.
- 13. An overcap of Claim 12, wherein the plurality of spacers are circumferentially spaced apart from each other and extend downwardly from the rim of the overcap.
- 14. An overcap of Claim 13, wherein the storage compartment defines a domed portion.
- 15. An overcap of Claim 14, wherein the domed portion has incorporated therein a desiccant.

- 16. An overcap of Claim 10, wherein the membrane is relatively impermeable to moisture.
- 17. An overcap of Claim 10, further comprising a drinking aperture defined in the annular portion.

18. A container assembly comprising:

a container comprising a bottom wall and a tubular side wall upstanding from the bottom wall, the side wall having a top edge encircling a top opening of the container;

a cap having rim configured to engage the top edge of the container, the cap having a top wall defining a storage compartment in an underside of the top wall, the top wall having a substantially horizontal annular portion radially inward of the rim and surrounding the storage compartment, a drinking aperture being defined in the annular portion; and

a membrane removably attached to the underside of the top wall of the overcap covering the storage compartment for sealing a product contained in the storage compartment.

- 19. A container assembly of Claim 18, further comprising a skirt extending downwardly from the rim.
- 20. A container assembly of Claim 19, wherein the skirt extends below a lowermost surface of the top wall of the overcap and defines a grip surface.
- 21. A container assembly of Claim 20, wherein the skirt includes a plurality of spacers extending along an inner surface of the skirt, wherein the plurality of spacers are circumferentially spaced apart from each other and extend downwardly from the rim of the overcap.

22. A container assembly of Claim 18, wherein the membrane is relatively impermeable to moisture.